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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/615,613	07/14/2000	Jeong-Ho Cha	992093	4625

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EXAMINER	
ZHONG, CHAD	

ART UNIT	PAPER NUMBER
2152	17

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/615,613	Applicant(s) CHA, JEONG-HO	
	Examiner Chad Zhong	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 June 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

OFFICE ACTION

1. This action is responsive to communications: Request for Continue Examination (RCE), filed 6/30/04.

2. Claims 1-15 are presented for examination. In RCE, filed on 6/30/2004:

claims 1-2 are amended;

claim 3 is original;

claims 4-14 are previously presented;

claim 15 is newly added.

Claim Rejections - 35 USC § 112

3. Claims 4-7, 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The claim language in the following claims is murky or not clearly understood:

i. As per claim 6, line 6, it is not clearly understood whether "a command signal" refers to "a command signal" in claim 4, line 11 (i.e. if they are the same, the word such as "said" or "the" must be used).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's prior art (hereinafter AAPA) in view of Nishio et al. (hereinafter Nishio) US 5,557,317.

6. As per claim 1, AAPA teaches the invention substantially as claimed including a program-changing method for a network comprising at least two nodes that each have a program, [said at least two nodes comprising a first predetermined node and a second predetermined node], said network further comprising a network management system (NMS) coupled to [the first predetermined] a node of the nodes, the method comprising the steps of (specification pg 3-5, figures 1-2):

a. transmitting, by the network management system (NMS) a new program data and a [first] control signal to said first predetermined node coupled to the network management system (NMS) disposed in the network separately from the nodes and configured to manage the changing of the programs of the nodes(specification pg 3-5, figures 1-2);

b. replacing the program of said [first predetermined] node coupled to the network management system (NMS) with the new program data

responsive to the control signal (specification pg 3, lines 7-13);

c. transmitting by the network management system (NMS), a [second] control signal to said [second predetermined] node for program-changing (specification pg 3, line 13); and

7. AAPA does not teach (b) allocating a fixed region in a memory within said [first predetermined] node in response to the reception of the new program data, storing the received new program data in the allocated fixed region. However it would have been obvious to one of ordinary skill in this art at the time of invention to have dynamic memory allocation for each node for storing the received data after the media's arrival because doing so would improve the integrity and efficiency of AAPA's system by storing the received data and forwarding the data on an as needed basis.

8. AAPA does not teach (c) causing the network management system (NMS) to transmit to

said [first predetermined] program-changed node a data-transmitting signal for transmitting the stored new program data to [said second predetermined] a node for program changing.

9. Nishio teaches (c) causing the network management system (NMS) to transmit to said [first predetermined] program-changed node a data-transmitting signal for transmitting the stored new program data to [said second predetermined] a node for program changing. (Col. 1, lines 51-57).

10. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of AAPA and Nishio because they both dealing with updating neighbor nodes of new data. Furthermore, the teaching of Nishio to allow

causing the network management system (NMS) to transmit to said [first predetermined] program-changed node a data-transmitting signal for transmitting the stored new program data to [said second predetermined] a node for program changing.

would improve the efficiency for AAPA's system by allowing less hops in between nodes.

11. AAPA does not teach (d) in response to the data-transmitting signal, causing said [first predetermined] program-changed node to transmit the stored new program data thereof to said [second predetermined] node for program-changing.

12. Nishio teaches (d) in response to the data-transmitting signal, causing said [first predetermined] program-changed node to transmit the stored new program data thereof to said [second predetermined] node for program-changing (Col. 1, lines 51-57).

13. As per claim 2, AAPA teaches the method as set forth in Claim 1, wherein the method further comprising the step of (e) replacing the program of the said [second predetermined] node for program changing (specification pg 3, lines 13-14).

14. AAPA does not teach new program data is received from said [first predetermined] program-changed node responsive to [second] control signal and step of

(f) transmitting by the network management system (NMS) a data-transmitting signal to the program-changed node for transmitting a new program data to a next node coupled to the program-changed node.

15. Nishio teaches

new program data is received from said [first predetermined] program-changed node responsive to [second] control signal and step of

(f) transmitting by the network management system (NMS) a data-transmitting signal to the program-changed node for transmitting a new program data to a next node coupled to the program-changed node (Col. 1, lines 51-57; Fig 1, 7).

16. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of AAPA and Nishio because they both dealing with updating neighbor nodes of new data. Furthermore, the teaching of Nishio to allow

new program data is received from said [first predetermined] program-changed node responsive to [second] control signal and step of

(f) transmitting by the network management system (NMS) a data-transmitting signal to the program-changed node for transmitting a new program data to a next node coupled to the program-changed node

would improve the efficiency for AAPA's system by allowing less hops in between nodes.

17. As per claim 3, AAPA teaches the method set forth in Claim 2, wherein said nodes are arranged in a straight line or loop (specification pg 2, lines 12-13; pg 4, lines 8-11; figure 1).

18. As per claim 12, AAPA teaches the method of claim 1, wherein said second control signal is identical to said first control signal (specification pg 3-5).

19. As per claim 13, AAPA teaches the method of claim 1, wherein the programs of each of the nodes are identical (specification pg 3-5).

20. As per claim 4, AAPA teaches a program-changing method for a network comprising a plurality of nodes including a first node and a second node, each of the first and second nodes having a program, the method comprising the steps of:

a. transmitting a new program data and a first control signal to the first node, said first node being coupled to a network management system (NMS) located in the network remotely from the plural nodes (specification pg 3, lines 8-11);

b. changing the program of said first node to said new program data under the control of said control signal (specification pg 3, lines 10-13);

d. transmitting a second control signal to said second node (specification pg 3, line 13); and,

e. upon receiving said stored new program data, changing the program of said second node to said new program data under the control of said second signal (specification pg 3, lines 13-14).

21. AAPA does not teach (c) storing said new program data in a memory means of said first node. However it would have been obvious to one of ordinary skill in this art at the time of invention to include memory in each node for storing the received data because doing so would improve the integrity of AAPA's system by storing the received data and forwarding the data when needed.

22. AAPA does not teach (d) transmitting, by said NMS to said first node, a command signal to transmit the stored new program data to the second node.

23. Nishio teaches (d) transmitting, by said NMS to said first node, a command signal to transmit the stored new program data to the second node (Col. 1, lines 51-57).

24. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of AAPA and Nishio because they both dealing with updating neighbor nodes of new data. Furthermore, the teaching of Nishio to allow the network management system (NMS) to transmit to said first predetermined node a command signal to transmit the stored new program data to said second node would improve the efficiency for AAPA's system by allowing less hops in between nodes.

25. AAPA does not teach (e) the program received at said second node originated from said first node.

26. Nishio teaches (e) the program received at said second node originated from said first node (Col. 1, lines 51-56).

27. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of AAPA and Nishio because they both dealing with updating neighbor nodes of new data. Furthermore, the teaching of Nishio to allow the program received at said second node originated initially from said first node would improve the efficiency for AAPA's system by allowing less hops in between nodes.

28. As per claim 5, AAPA teaches the method set forth in Claim 4, wherein said nodes are arranged in a straight line or loop (specification pg 2, lines 12-13; pg 4, lines 8-11; figure 1).

29. As per claim 6, AAPA teaches the method as set forth in Claim 4, wherein the plural nodes further include a remaining node, said method further comprising the steps of:

g. transmitting said second control signal to said remaining node (specification pg 3, lines 15-16);

h. upon receiving new program data, changing the program of said remaining node to said new program data under the control of said second control signal (specification pg 3, lines 15-16).

30. AAPA does not teach

f. storing said new program data received from said first node in a memory means of said second node;

g. transmitting, by said NMS, a command signal to said second node to transmit said stored new program data in said second node to sad remaining node.

31. Nishio teaches

f. storing said new program data received from said first node in a memory means of said second node (Col. 1, lines 51-57);

g. transmitting, by said NMS, a command signal to said second node to transmit said stored new program data in said second node to sad remaining node (Col. 1, lines 51-57; Col. 3, lines 54-56).

32. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of AAPA and Nishio because they both dealing with updating neighbor nodes of new data. Furthermore, the teaching of Nishio to store said new program data received from said first node in a memory means of said second node and transmitting, by said NMS, a command signal to said second node to transmit said stored new program data in said second node to sad remaining node would improve the efficiency for AAPA's system by allowing less hops in between nodes.

33. As per claim 7, Claim 7 is rejected for the same reason as the rejection to claims 4 and 6 above.

34. As per claim 14, Claim 14 is rejected for the same reason as the rejection to claim 7 above.

35. As per claim 8, Claim 8 is rejected for the same reason as the rejection to claim 4

above.

36. As per claim 9, Claim 9 is rejected for the same reason as the rejection to claim 7 above.

37 As per claim 10, Claim 10 is rejected for the same reason as the rejection to claim 8 above.

39. As per claim 11, Claim 11 is rejected for the same reason as the rejection to claim 5 above.

39. As per claim 15, AAPA does not explicitly teach the method as set forth in Claim 2, wherein the method further comprises the step of transmitting by said node receiving the data-transmitting signal a new program data to the next node and replacing the program of said next node for program-changing with the new program data received from said node receiving the data-transmitting signal, responsive to the control signal received from the network management system (NMS).

40. Nishio teaches teach the method as set forth in Claim 2, wherein the method further comprises the step of transmitting by said node receiving the data-transmitting signal a new program data to the next node and replacing the program of said next node for program-changing with the new program data received from said node receiving the data-transmitting signal, responsive to the control signal received from the network management system (NMS) (Fig 1, 7; Col. 1, lines 50-55, lines 35-40; Col. 6, lines 5-20, lines 45-60).

41. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of AAPA and Nishio because they both dealing with updating neighbor nodes of new data. Furthermore, the teaching of Nishio to allow

wherein the method further comprises the step of transmitting by said node receiving the data-transmitting signal a new program data to the next node and replacing the program of said next node for program-changing with the new program data received from said node receiving the data-transmitting signal, responsive to the control signal received from the network management system (NMS)

would improve the efficiency for AAPA's system by allowing less hops in between nodes.

Conclusion

42. Applicant's remarks filed 6/30/04 have been considered but are found not persuasive in view at the new grounds at rejection necessitated by Applicant's amendment.

43. In the remark, the applicant argued in substance "a command signal" as stated in claim 6 used in step (d) and (g) is an example of claiming broadly.

In response to applicant's argument, the command signal used from NMS towards the first and respective nodes in the invention are one of the same and should be addressed with "said" or "the". In case they are different signals, the applicant should address them as such to avoid confusion. For instance, the control signals used on claim 4 line 1 and line 8 are one of the same and was addressed as such. The applicant should make appropriate changed stated above to the entire claims section to avoid further 112 conflicts and to put the case in condition for further prosecution.

44. In the remark, the applicant argued in substance "No video or update data flows from the VMC".

In response to applicant's argument, there is indeed video update data coming from the NMS equivalent and going from node to node. Referring to Col. 5, lines 10-15; Col. 6 lines 5-20; the information is indeed updated from node to node. Thus there is data update flowing from the central control node initially and from node to neighbor nodes thereafter.

45. In the remark, the applicant argued in substance that Nishio does not teach a ring or a loop.

In response to applicant's argument, Nishio does teach a ring and a loop. Referring to Figure 7, the intermediary nodes can be configured in any fashion, and that include a ring, a star or straight line etc. The shape of the nodes has no bearing on the functionality of the invention, further, the ring or star configuration is but two of numerous network configurations and not a patentable distinction nor a novelty. Thus in light of the above, Nishio does teach a ring and a straight line configuration.

46. In the remark, the applicant argued in substance that Nishio does not proliferate a particular video program or update data throughout the nodes; instead, a particular Nishio node relocates its video program to another node and then erases (Col. 7, line 3 "erased") its copy.
In response to applicant's argument, Nishio does teach the erasing aspect from the node. However that is but one limitation regarding to Nishio's nodes. For instance, referring to Col. 5, lines 40-50; Col. 6, lines 5-20 and lines 45-60, the specific sections cited above teach the erasing aspect as well as a copying aspect. Thus, even though it is possible, if not a necessity to erase some of the data transferred from node to node to free up resources at some point of system operation. This limitation however, does not teach nor suggest the inability to copy information from one node to the next, (i.e. transfer OR erase).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (703) 305-0718. The examiner can normally be reached on M-F 7am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on 703-305-8498. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CZ
July 2, 2004

ZARNI MAUNG
PRIMARY EXAMINER